To: R2 EPA Region 2 (EPA Staff)[R2_EPA_Region_2_EPA_Staff@epa.gov]
From: Shore, Berry
Sent: Mon 3/21/2016 12:59:06 PM
Subject: Hoosick Falls/POFA and Other Drinking Water Contaminant Clips

Tests show farmer's well with high levels of PFOA; next up is soil test

By WRGB Staff |

Thursday, March 17th 2016

NORTH BENNINGTON, Vt. -- Crews are back on the ground, checking to see if the soil in the Village of North Bennington is contaminated with PFOA, a dangerous chemical linked to cancer.

Farmer Bruce Weinfurt found out Thursday morning well water at his Bennington home tested at 297 parts per trillion. That's nearly 15 times what the State of Vermont considers a safe exposure level.

Now, he's hoping soil samples come back negative.

"If they come back positive, then we have a problem. Then we have a real big problem, because it makes my property pretty much valueless."

Aside from health and property concerns, residents are worried what crews will find in their soil.

At a community meeting Wednesday night, state workers told CBS 6 PFOA can work its way into plants.

"It goes up into the leafy portion of vegetables, and also goes into the root portion of a vegetable. So that is something we're definitely interested in looking at," said Anne

MacMillan with Vermont's Agency of Agriculture, Food and Markets.

Soil test results should be back within a month, according to state leaders.

Hoosick fishing and PFOA

Updated Mar 17, 2016

The PostStar

The terrible water contamination situation in the Hoosick Falls and Bennington, Vermont areas has been playing out for months, and one question has popped into my head as an avid fisherman who occasionally fishes streams in that area.

Is it safe to fish and eat fish from the waters in that area?

The Hoosic and Walloomsac rivers are two very good trout streams that pass through these areas, where the chemical PFOA from factories in the region has been found to contaminate wells and public water systems. The Walloomsac has become a favorite of mine in recent years.

At this point I will be surprised to hear that these streams aren't holding the chemical, though what levels it would have in swiftly running water like a trout stream is unclear.

I'm told that both New York and Vermont's health departments are seeking testing of the streams as well, and a finding that they are contaminated is undoubtedly going to result in some restrictions on eating fish.

As someone who typically practices catch-and-release, that doesn't affect me much. But there are a lot of people who keep the trout they catch, so new rules along these lines will have a big impact.

It wouldn't seem that the occasional trip into these waters while wading wouldn't have a big health impact if contamination is found, but who knows at this point? It seems this bad situation is going to get worse before it gets better.

-- Don Lehman

Advocates: EPA Gets 'F' On PFOA

By Sara Jerome

March 18, 2016

Water On-Line

As Vermont and New York undergo perfluorooctanoic acid (PFOA) scares, the chemical is grabbing attention from clean-water advocates who want to know why there is no federal drinking water limit on this industrial chemical.

“Prized for its ability to make things super-slick, PFOA was used for decades in the manufacture of Teflon pans, Gore-Tex jackets, ski wax, carpets and the linings of pizza boxes and microwave popcorn bags,” the Associated Press recently reported.

“Now, with the suspected cancer-causing chemical PFOA being phased out in the U.S., it is still very much around, turning up in the water in factory towns across the country,” the report said.

Advocates are demanding that the U.S. EPA regulate this chemical. Currently, the federal government considers it an “emerging” threat, meaning it may pose a potential or real threat to public health.

Tracy Carluccio of the Delaware Riverkeeper Network, weighed in, per the AP.

“Where is the government that is supposed to protect people and the environment? It’s an outrage,” she said.

Why hasn’t the EPA already acted? The AP explained:

In their defense, EPA officials said that the agency has been considering for years whether regulations are needed for PFOA and related perfluorinated chemicals, but that it is a drawn-out testing and evaluation process dictated by the federal Safe Drinking Water Act. In the meantime, the EPA has taken action around the country to fine companies and force them to clean up such chemicals.

Vermont is one place where PFOA has become an issue.

“Vermont officials testing samples at drinking-water wells in North Bennington, VT, found widespread contamination on properties near a closed chemical plant, Gov. Peter Shumlin announced,” The Wall Street Journal reported this week.

“Of 67 samples taken this month, 52 private wells showed unsafe levels of perfluorooctanoic acid,” the report said, citing state officials.

Hoosick Falls, NY, is undergoing a PFOA threat, as well. Local Teflon manufacturing appears to be the source of the contamination.

“After the revelation of lead contamination in Flint, Mich., where Gov. Rick Snyder’s response was widely criticized, the situation in Hoosick Falls has provoked both deep concern about water quality and a heightened scrutiny of how public officials have responded,” The New York Times reported.

PFOA is a manmade substance, “readily absorbed after oral exposure,” according to the

EPA. It accumulates “primarily in the serum, kidney and liver. Toxicological studies on animals indicate potential developmental, reproductive and systemic effects.” It has been linked to kidney and testicular cancer, among other major health problems.

For more PFOA coverage, visit Water Online’s Source Water Contamination Solutions Center.

Image credit: "Vermont Winter Landscape," Nosha © 2008, used under an Attribution 2.0 Generic license: https://creativecommons.org/licenses/by/2.0/

Dover well could be too contaminated: The Griffin Well used for drinking on Rt. 155 could be deemed unsafe by the EPA.|

By Nik Beimler

Posted Mar. 17, 2016 at 5:29 PM

Updated Mar 18, 2016 at 3:02 PM

Fosters.com

DOVER — The Griffin Well, previously one of the eight used to provide drinking water for the city, could be deemed too contaminated to use in the future.

The well has been offline since the end of 2015 for routine maintenance, and with the looming risk of the Environmental Protection Agency (EPA) saying the well contains contaminates called perfluorinated chemicals (PFCs) beyond acceptable levels, the City of Dover has decided to no longer use it for drinking water.

Testing revealing the presence of PFCs at the Griffin Well took place in March 2014, according to James Martin, public information officer for the New Hampshire Department of Environmental Services (NHDES).

“Even though we have ensured that output from all of our wells, including Griffin, has remained within established standards required for safe drinking water,” said City Manager Michael Joyal in an email. “In recent weeks, we have become aware of increasing concern … regarding the US EPA changing its health guidance for certain unregulated compounds.”

According to Joyal, the EPA may soon lower its accepted levels of perfluorooctanoic acid (PFOA), a contaminate, in drinking water supplies. The current acceptable level is 400 parts per trillion, and the level in Griffin Well has been measured at 67 ppt. The EPA is expected to decrease the acceptable level below 400 ppt in the near future.

According to cancer.org, PFOA is a synthetic chemical “used in the process of making Teflon and similar chemicals …, although it is burned off during the process and is not present in significant amounts in the final products.”

While significant testing has not been done, cancer.com says some studies “have suggested an increased risk of testicular cancer with increased PFOA exposure. Studies have also suggested possible links to kidney and thyroid cancer, but the increases in risk have been small and could have been due to chance.” Testing done on lab animals have suggested increased risk of tumors of the liver, testicles, mammary glands and pancreas after exposure to PFOA, but it is unclear whether it would have the same effect on humans.

A May 2006 EPA Science Advisory Board report found that PFOA is “likely to be carcinogenic to humans,” but did not classify at what levels the chemical is carcinogenic.

“To date, studies have been inconclusive as to whether PFCs can affect growth and development, hormone levels including thyroid hormone, liver enzyme levels, cholesterol levels, immune function or occurrence of certain types of cancer,” Martin said, citing a press release relating to a similar, ongoing situation in Merrimack. “Further research is needed to determine whether PFCs can cause health changes in humans.”

Dover has been working with the NHDES to develop plans to construct a new well to

replace the Griffin Well. This is a precautionary response to several potentially harmful compounds appearing in higher concentrations in recent years.

"Over the course of the past two years, we have been actively developing and securing permits for a new drinking water well to replace Griffin Well," Joyal said. "Although this new well has yet to be finished for production, we have decided to proceed with discontinuing the use of the existing Griffin Well at this time."

In addition to PFOA, low concentrations of two other compounds, perfluorooctyl sulfonate (PFOS) and perfluoroheptanoic acid (PFHpA) were found in the water at Griffin Well. PFOA and PFOS levels at the well are currently at acceptable levels according to EPA standards. There is no existing EPA guidance value for PFHpA.

The Griffin Well is located off of Rt. 155 near Pudding Hill, and is in the area of the former Madbury Metals. Contaminants from Madbury Metals have been slowly penetrating the well site, Joyal said.

The remaining seven wells used for drinking water are expected to be able to meet the needs of Dover until a new well can be completed. Tests of each of these wells detected no presence of PFOA, PFOS or PFHpA.

The NHDES tested 18 drinking water locations that serve more than 10,000 customers in the state for PFCs. Of those, just two – the Griffin Well and the Merrimack Village District Water System – contained levels of PFOA or PFOS. Merrimack and the NHDES are currently working to remedy the situation there.

When the new well is constructed and begins to contribute to Dover's water supply, the Griffin Well may take on a different role.

"Although the Griffin Well is expected to remain offline and not used for drinking water production going forward, the well may be repurposed and used to hydraulically block the further migration of contaminants from the former Madbury Metals site," Joyal said.

“This potential reuse and other protective measures for the Pudding Hill aquifer are being evaluated by consultants engaged by the City and paid for by grant funds provided via (a DES settlement fund).”

Contamination worries close Dover's Griffin Well

By KIMBERLEY HAAS

March 17, 2016

Union Leader Correspondent

DOVER — Officials have announced their intention to stop using the city’s largest well because of concerns over possible contamination.

The Griffin Well, located off Mast Road between Routes 108 and 155 near the Madbury town line, provides upwards of 1 million gallons of water every day for residents. It has been monitored by the New Hampshire Department of Environmental Services for years after it was discovered that the well was in danger of contamination from a potentially cancer-causing gasoline additive from a nearby defunct metal recycler, Madbury Metals.

On Thursday, City Manager Michael Joyal told city councilors that in 2014 water collected from the well detected low concentrations of three perfluorinated compounds: PFOA, PFOS and PFHpA. They are currently within a range found acceptable by the U.S. Environmental Protection Agency. But officials believe that will soon change, and Dover will not use the well for drinking water any longer.

“Even though we have ensured that output from all of our wells, including Griffin, has remained within the established standards required for safe drinking water, in recent weeks we have become aware of increasing concern in New York, Vermont and most recently Merrimack, New Hampshire, regarding the U.S. Environmental Protection Agency changing its health guidance for certain unregulated compounds, in particular perfluorinated compounds,” Joyal said in an email sent to councilors. “DES and our staff have become aware that EPA may lower its health guidance levels for one of the perfluorinated compounds, PFOA, in the near future from the current 100 (parts per billion) to something lower. If this change does in fact occur, the Griffin Well could no longer be able to be used to produce drinking water.”

In Merrimack, some residents are concerned about their water supply after low levels of PFOA, or perfluorooctanoic acid, was found at the Saint-Gobain plastics plant. On March 9, environmental activist Erin Brockovich and law firm Weitz & Luxenberg, which has filed a class-action lawsuit against Saint-Gobain and Honeywell International over water contamination in New York and Vermont, announced that they are expanding their investigation to include Merrimack.

Joyal said the decision in Dover was made over the course of the past several days, and the city's remaining seven wells will be able to meet drinking water demands until a new well is tied in for drinking water production.

When Dover tested its other wells for the questionable compounds, no detections were found.

Over the course of the last two years, officials in Dover have been actively developing and securing permits for a new well to replace Griffin Well, which was taken off line at the end of last year for routine maintenance.

— Union Leader Correspondent Kimberly Houghton contributed to this report.

U.S. Military to Check for Groundwater Contamination at its Facilities

by nicholsonj

March 17, 2016

Hazmat Magazine

The U.S. Department of Defence recently stated that will test the groundwater at 664 military bases to determine if chemicals from the foam used to fight fires have resulted in contamination. Perfluorinated chemicals, and ingredient in the foam used to fight

fires, have already been discovered in the groundwater at several military installations in the U.S. In some cases, the chemicals were found in the drinking water supply resulting in the need for the military personnel to rely to bottled water for drinking.

According to the U.S. Agency for Toxic Substances and Disease Registry, exposure to perfluorinated chemicals may cause prostate, kidney and testicular cancer, along with other health issues.

Foam is used in firefighting where fuel fires can occur, such as in a plane crash, because it can rapidly extinguish them. Some firefighting foams contain perfluorooctane sulfonate (PFOS) and/or perfluorooctanoic acid (PFOA), both considered emerging contaminants by the U.S. Environmental Protection Agency. Knowledge about the chemicals' effects has been evolving, and the U.S. EPA currently does not regulate them. However, in 2009, the U.S. EPA did issue a guidance document on the level at which PFOS and PFOA are considered harmful to health.

The U.S. Department of Defense stated that it plans on not using foam with perfluorinated chemicals. It is removing remaining stocks of the foam stocks in some locations and is taking measures to prevent any uncontrolled releases of the foam during training exercises.

NH DES Releases PFOA Drinking Water Test Results

By Tony Schinella (Patch Staff

March 18, 2016

Merrimack Patch.com

CONCORD, NH - The New Hampshire Department of Environmental Services (NHDES) has received the drinking water well test results from an initial round of testing for Perfluorooctanoic Acid (PFOA) in Merrimack and Litchfield, according to a press statement.

The test results show levels of PFOA from 17 to 820 parts per trillion. Test results from the Merrimack Village Water District ranged from 17 to 90 parts per trillion.

The U.S. Environmental Protection Agency (EPA) has not set an enforceable drinking water standard for PFOA under the federal Safe Drinking Water Act, according to the NH DES. EPA's Office of Water has, however, established a Provisional Health Advisory (PHA) of 0.4 micrograms per liter (µg/L) or 400 parts per trillion for PFOA.

That level is set based upon short-term contact and the EPA is currently developing guidance for long-term exposure levels, which EPA is expected to release in the near future. Since the EPA has not yet established a health advisory for lifetime exposure to PFOA, NHDES, out of an abundance of caution, has decided to provide bottle drinking water to locations using a private well for drinking water for human consumption that contains over 100 parts per trillion of PFOA. NHDES will reassess this situation once EPA provides more definitive guidance.

The Merrimack Village Water District public water supply wells all tested below both the PHA of 400 parts per trillion and the level at which NHDES determined it would be appropriate to initially provide bottled water.

Based on this first round of testing, NHDES has initiated additional testing of drinking water wells in both Merrimack and Litchfield.

What is PFOA?

PFOA, a perfluorochemcial (PFC), is part of a family of manmade chemicals that were used for decades as ingredients to make products that resist heat, oil, stains, grease, and water, such as non-stick cookware, weather resistant outdoor clothing and gear, and stain resistant carpeting. Many chemicals in this group, including PFOA, are commonly present in the environment and do not break down easily.

Studies have shown that nearly all people have some level of PFCs in their blood.

Potential health effects from exposure to low levels of PFCs are not well understood, according to officials. To date studies have not provided consistent answers as to whether PFCs can affect growth and development, hormone levels including thyroid hormone, liver enzyme levels, cholesterol levels, immune function or occurrence of certain types of cancer, according to the state.

However, advocates, like consumer advocate Erin Brockovich, challenge this assertion and have alerted officials she and other lawyers would be broadening their investigation into regional water contamination.

The NHDES and the Division of Public Health Services, in coordination with the towns of Merrimack and Litchfield, invite the public to Public Information Meetings to be held in the towns of Merrimack and Litchfield to discuss the results of recent drinking water tests related to an investigation of the presence of PFOA in drinking water.

Below is the meeting information:

•Merrimack: Wednesday, March 23, 2016, 7 p.m., James Mastricola Upper Elementary School all-purpose room, 26 Baboosic Lake Road, Merrimack, NH 03054

•Litchfield: Thursday, March 24, 2016, 7 p.m., Litchfield Middle School cafeteria, 19 McElwain Drive, Litchfield, NH 03052

The investigation into the potential presence of perfluorochemicals (PFCs) in drinking water in Merrimack began several weeks ago when Saint-Gobain Performance Plastics notified NHDES that perfluorooctanoic acid (PFOA) was detected at low levels [0.03 micrograms per liter (µg/L)] in samples taken from four water faucets within their Merrimack facility, which is served by the Merrimack Village District Water System, according to the state.

PFOA has been detected in the Hoosick Falls, NY, water supply and in some private wells in North Bennington, VT, near other Saint-Gobain facilities. Because materials containing PFOA have been used at the plant in Merrimack and out of an abundance of caution, Saint-Gobain voluntarily tested the water at its Merrimack facility and intends to test the groundwater at its facility.

For more information, please visit the NHDES website at des.nh.gov or call Jim Martin, NHDES at(603)-271-3710.

Petersburgh residents feel forgotten amid PFOA crisis

By Anna Meiler

Updated: 03/19/2016 3:22 AM

News 13 WNYT.com

PETERSBURGH - Emily Marpe has a lot of questions about the high levels of PFOA in her private well.

But, she says she has nowhere to turn.

“The more I look on the Internet it's confusing, it's mind boggling, it makes you wonder what this chemical is and what it can do,” said Marpe.

Marpe's private well tested the highest for the toxic chemical- at a level 21 times higher than the EPA'S guideline of 100 parts per trillion. Her family is now drinking bottled water, but she wants to know if the soil is safe for her children to play on.

“I want to know if my kids should do their Easter egg hunt on it,” she said.

The New York State Department of Environmental Conservation hasn't tested the soil in Petersburgh yet and there's nowhere in town for people to get their blood tested. Emily would also like to see state officials on hand answering people's questions like at the Armory in Hoosick Falls.

“They’ve got information on paper. They've got real people talking to them. We don't have real people,” said Marpe.

Mandy Niegoda's results show 2,100 parts per trillion of PFOS in her private well. It’s a chemical in the same family as PFOA. She says her family hasn't received any information about how to protect themselves.

“They didn't really give me information when they called me. They just told me what the test came back as. As of right now we’re drinking the water, we’re bathing in the water. We've had it in the vaporizer in the house,” said Niegoda.

At a town meeting Friday night people also asked why Taconic Plastics, the suspected source of contamination, isn't paying for bottled water to be delivered to people in need.

“They should have it brought to them because this isn't a problem they brought upon themselves,” said Niegoda.

They also want to know why the company isn’t providing filtration systems for people whose wells test below 100 ppt.

“If the regulatory standard comes out from the state or federal government that lowers that 100 that can be worked into the equation between Taconic and DEC about who will receive a carbon filter system,” said Chris Meyer, deputy county executive of Rensselaer County.

Emily says right now the people in her town feel forgotten.

“Are we just that little town that's going to fall to the wayside? I don't want to be that little town," said Marpe.

DEC officials tell NewsChannel 13 they will be back in Petersburgh at some point and soil samples will be taken eventually. The Department of Health is directing anyone who wants blood testing done to call the PFOA hotline: 800-801-8092 (Monday - Friday: 9 am - 8 pm; Saturday: 9 am - 3 pm)

Senator Leahy calls for more funding, stricter regulation amid Bennington water crisis

By Edward Damon

Posted: 03/18/2016 08:47:40 PM EDT | Updated: a day ago

Berkshire Eagle

BENNINGTON, VT. >> U.S. Sen. Patrick Leahy, D-Vermont, says he will push for stricter regulations for drinking water and on toxic chemicals, as well as more federal funding for the EPA.

He also pledged support to connect the homes with private wells contaminated by a man-made chemical onto public water systems.

Leahy visited Bennington on Friday to meet with officials and residents over PFOA, or perfluorooctanoic acid.

"Ask a parent if they want money to make sure their children are getting clean water — or do they want another war," Leahy said, addressing residents, officials and the press. "I don't have to take a poll to know the answer to that."

Several times during his visit, Leahy referenced the water crisis in Flint, Mich. But he stressed that Bennington is not another Flint and applauded the response from Vermont's legislators and officials.

"I'm willing to bet Vermont would never close its eyes to it like the governor's office did in Michigan," he said. "[PFOA contamination] is something new. We're here to help."

Residents still have unanswered questions. It's unknown how far PFOA contamination has spread into the ground and water. Also unclear is how exactly it got there — whether through the air or water. While studies link chronic exposure with certain cancers, scientists aren't entirely sure how it affects the human body. And it's unclear how the chemical affects agricultural activities.

But officials say their highest priority is to make sure no one is drinking contaminated water. Residents with private wells within 1.5 miles from the former ChemFab facility, 1030 Water St., should sign up for well testing and bottled water.

The state's information hotline is 802-828-1038. A website with data, maps, and other resources is: www.anr.state.vt.us/dec/PFOA.htm.

An emergency operations center is at the state's Department of Health offices at 324 Main St.

Testing is ongoing

Of 185 private wells tested by the state, 100 had PFOA levels above Vermont's limit of 20 parts per trillion, according to Chuck Schwer, director of the state Department of Environmental Conservation's Waste Management and Prevention Division, and the state aims to test more.

The highest levels were close to what is believed to be the source: The former ChemFab facility at 1030 Water St., where Teflon products were made starting in the late 1960s. The Saint-Gobain Corp. eventually bought the company, closed it in 2002 and moved operations to New Hampshire.

On March 10, the state took samples from rivers, lakes and streams. Samples are expected back from the lab, which is out of state, in about two weeks.

"There's a lot we don't know about it."

The direct health effects of PFOA are not entirely known, according to the state's Department of Health Commissioner Harry Chen.

"There's a lot of uncertainty. But making sure people have clean water is the most important thing," Chen said.

PFOA is an "emerging contaminants" not regulated by the EPA.

"There's a lot we don't know about it," Schwer said.

Schwer said soil sampling in the area, including the ChemFab site, began this week. That will help scientists determine how PFOA affects wildlife and livestock, commercial farms and home gardens, and even maple syrup.

Trying to calculate how much PFOA is absorbed by, say, a leaf of lettuce, is "a challenging task," according to Chen, and those studies could take weeks.

Chen said the Center for Disease Control will help the state with blood tests for PFOA. The state hasn't yet tested any blood, he said, noting the logistical challenges of collecting that many samples.

Short term, long term solutions

Saint-Gobain said it will pay to deliver drinking water to village residents and will install carbon filtration systems at each affected home. The French multinational company is doing the same in Hoosick Falls, N.Y., the home to one of its factories. PFOA has also been found in Petersburgh, N.Y., where Taconic Plastics is the suspected source.

Leahy, echoing remarks made by Gov. Peter Shumlin at a community meeting Wednesday, said he will push for a long-term solution of connecting homes to the municipal water systems, which don't contain PFOA.

Schwer said state engineers in Montpellier and those contracted by Saint-Gobain are looking into that now. More should be known in three to four weeks, he said.

Leahy, who serves on the Senate's appropriation's committee, said he is requesting more money for the EPA. He said laws relating to toxic chemicals need to be overhauled, with many having been grandfathered in without ever being tested. He said he hopes both Democratic and Republican lawmakers can work together, but noted, "a lot of them don't like environmental legislation — unless something happens in their community."

Some politicians argue against environmental legislation because of a high cost, he said.

"Those are the same people who wrote a blank check for war in Iraq and Afghanistan," Leahy said.

Deep concern among residents

A dozen residents greeted Leahy at the North Bennington Train Depot just after 1 p.m. Among them was Matthew Patterson, chairman of the village board.

"We as the village didn't create the problem, but want to be part of the solution," Patterson said.

Ellen K. Viereck was one resident who signed up for well testing Friday. Her Shaftsbury home on Cold Spring Road is about a mile away from the train depot.

"I'm very concerned about it," she told Leahy.

Mirka Prazak told Leahy she's lived in the village for 20 years and is paying off the mortgage for her home. She's on public water, but she's concerned about what will happen to property values in town.

Will homes need to be reassessed? Will the state pay to make up the loss in taxes the community needs for its coffers?

Leahy said he believed once the water contamination is removed from private wells, property values should be fine.

"It seems like there are so many dimensions to this, and one doesn't know where to begin asking questions," Prazak said in an interview with the Banner.

She said she left Wednesday's community meeting at Bennington College — where Shumlin and others reviewed well testing results and other state efforts — with a hollow feeling in her chest.

Prazak said she thinks Bennington is a great community, but she's worried news of contamination will discourage new residents from buying a home and moving here.

"The whole community is tainted by this."

Contact Edward Damon at 413-770-6979.

Some in Petersburgh feel neglected by NYS regarding water issue

By Rachel Yonkunas

Published: March 18, 2016, 9:41 pm | Updated: March 19, 2016, 1:30 pm

News 10.com ABC

PETERSBURGH, N.Y. (NEWS10) – Rensselaer County officials presented a map of PFOA well testing at a board meeting in Petersburgh on Friday, but many people have questions that are being directed to the state.

People in the town are starting to feel forgotten about by state officials who have, yet, to hold a meeting in the town.

But in the state of Vermont, a fact sheet was handed out at a meeting regarding PFOA contamination on Wednesday. The sheet included information about livestock, which is a concern for people in Petersburgh.

“Mind boggling,” Petersburgh resident Emily Marpe said.

Of the 50 private wells tested for PFOA in Petersburgh, Marpe’s had the highest level of 2,100 parts per trillion. That’s 21 times higher than what the U.S. Environmental Protection Agency considers safe.

It’s also higher than all levels found in the Hoosick Falls water supply.

“We still have children,” Marpe said. “We still have fears and concerns.”

But at Friday’s board meeting, only the Rensselaer County Department of Health was there. And Marpe couldn’t help but feel neglected by her own state after seeing how helpful meetings in Vermont have been.

“When your governor comes and comments on the color of a tank that’s providing you with a basic necessity of life,” she said.

The Rensselaer County Department of Health is doing all the well testing in Petersburgh. It has taken 33 additional samples since February.

“If we’re finding higher results and finding higher detections, we will expand the testing area,” Deputy County Executive Chris Meyer said. “As the results come in, we’re going to expand on where the results show where we need to test more.”

But the wait for answers from the New York State Department of Environmental Conservation or New York State Department of Health officials is becoming too tough for people in Petersburgh.

“It’s hard,” Marpe said. “It’s hard because right now my family is my top priority.”

The county said it will begin installing carbon filters next week into homes with wells that showed PFOA levels higher than 100 ppt.

DEC and local officials are working to determine the extent of the contamination in the Town of Petersburgh, which will include soil sampling.

DEC secured an agreement with Taconic Plastics to install POETS on affected homes and Taconic's contractor will begin to install these systems on the homes with the highest levels next week.

The State is working with local partners to ensure that the systems comply with all applicable state standards to ensure water is acceptable for all uses for the residents of Petersburgh. Additionally, the Department of Health is currently working with the Town of Petersburgh and Rensselaer County Health Department on the specifications and design of the municipal water filtration system to best treat PFOA contamination.

Governor's office, DEC and DOH officials have been Petersburgh twice previously, once when the first test result came back and we started bottled water and then again on Feb. 26 to talk to local officials. DEC tells us they plan to return to Petersburgh to provide an update to town officials soon.

Sen. Patrick Leahy hears from Bennington residents on water contamination: Senator promises legislation to help prevent future contamination

By Jennifer Sheahen

UPDATED 11:42 AM EDT Mar 19, 2016

Channel 5, WPTZ.com

BENNINGTON, Vt. —Vermont Sen. Patrick Leahy was in Bennington Friday afternoon, learning more about the contamination of almost 100 residents' wells.

Leahy began his day at a state Department of Environmental Conservation office, where he was briefed on the latest results of PFOA testing.

Watch this story

Friday was the first time residents had to let Leahy know about their concerns. Many said they were concerned about more than just their drinking water.

“We have gotten our well tested," resident Cindy Myers said. “I live almost on the New York state line, and I'm very concerned about it.”

Gov. Peter Shumlin said 94 residential wells have now tested positive for perfluorooctanic acid, or PFOA, contamination.

Myers said she’s lived in Bennington since the 1970s.

“I'm concerned about the soil. I'm concerned for all the children. I live not even a quarter of a mile from (the former) Chemfab (plant),” Myers said.

DEC officials have also begun testing area soil samples.

“The sampling was just done this week, so we should have that in about a month, maybe a little less. So that will tell us if it is in the soil. Then we can do calculations to find how much uptake in plants and whether it's truly a risk it not,” a DEC official said.

Leahy said state officials were working hard to get answers, results and aid.

“The important thing is that we get it tested. And if we can stop everything and clean everything up. That's the most important thing,” Leahy said.

Leahy said he will return to Washington, D.C., with the goal of pushing a key piece of legislation that could prevent situations like the one Bennington residents were experiencing.

“The whole idea is that the federal government will evaluate a chemical (plant) before they are allowed to come on the marketplace,” an official said. “So for example, if they know a chemical is highly toxic, if that had been properly evaluated, it could have been prevented.”

The DEC is still waiting for test results from about 40 other wells. They expect them by Monday.

Residents with contaminated wells are being given filters for their water systems. Bottled water and tanker trucks were available for residents with contaminated water.

Leahy visits North Bennington, health commissioner on PFOA level By Asa Stackel

Updated: 03/18/2016 6:01 PM

News Channel 13 WNYT

NORTH BENNINGTON -- U.S. Senator Patrick Leahy met people living with PFOA at the North Bennington railroad depot Friday. The 41 year veteran of the senate, says this visit alone, will give him a better political argument to get federal money.

"What I can do, they're going to need money for the CDC, they're going to need money for others, I'll work to get them that money. It's a good time to be talking about because we're getting into the appropriations season," said Leahy, D - Vermont.

Although the municipal water is fine, 70 percent of the homes on private wells within a mile and a half of the North Bennington Saint-Gobain plant have PFOA contamination. That's 94 out of the 134 tested.

The sample area has now been expanded to include other homes. The state is also working on sampling soil from 30 locations.

The state health commissioner, Dr. Harry Chen came along too. We asked him why he set Vermont's PFOA safe level at 20 parts per trillion, when the New York is following the EPA's recommendation, which is 5 times higher at 100 parts per trillion.

"The New York level, which is the provisional level by the EPA, is really based on 150 pound adult drinking water at the rate that they usually do. Whereas the Vermont level is based on a newborn baby drinking water at the rate a newborn baby does," said Dr. Chen.

Governor Cuomo has said New York doesn't have the capacity to make its own PFOA limits. The state health commissioner in Vermont however, says his state does.

The senator, with little involvement in the situation, approves of his state's handling of PFOA contamination.

"The state of Vermont, I'll say this as a Vermonter, I'm extraordinarily proud of the response of our state government."

Senator Leahy's office says he is pushing for an increase in funding that will help North Bennington. Their email to us is below:

Senator Leahy included in his Fiscal Year 2017 (FY17) request, a call for the Department of the Interior Subcommittee to fund the Clean Water State Revolving Fund (CWSRF) at $1,448,887,000 and the Drinking Water State Revolving Fund (DWSRF) at $1,020,000,000.

· The Senator also joining numerous Senators in sending a letter to requesting that

the Interior Appropriations Subcommittee provide strong funding for the CWSRF and DWSRF.

· The Senator is joining another letter urging the Interior Appropriations Subcommittee to support funding for U.S. Environmental Protection Agency (EPA) to provide technical assistance to assist small and rural communities with compliance with federal regulations under the Safe Drinking Water Act, the operation and management of water utilities, and public health protection through the provision of safe drinking water to the public.

Preliminary testing of Merrimack water samples reveals chemical in 2 private wells

By KIMBERLY HOUGHTON

Public Safety

March 18. 2016 11:27PM

Union Leader.com

Picture: Last week, environmental activist Erin Brockovich and the law firm Weitz & Luxenberg announced that it will begin looking into the Merrimack water problem, just as it has in other communities in Petersburgh, N.Y., North Bennington, Vt., and Hoosick Falls, N.Y. The same firm recently filed a class-action lawsuit against Saint-Gobain and Honeywell International over water contamination in those areas. (Abaca Press/2014 MCT FILE)

MERRIMACK — Two families are being provided with bottled drinking water from the state Department of Environmental Services after preliminary test results showed evidence of perfluorooctanoic acid in their private wells.

James Martin, public information officer with DES, said his agency decided to provide bottled water to all homes where the initial test results detected more than 100 parts per trillion of perfluorooctanoic acid, or PFOA.

Although three private wells detected PFOA above 100 ppt, two of the wells are on the same property, explained Martin. The double wells sit on one location in Litchfield, and that family began receiving bottled water on Friday; one of those wells detected about 350 ppt of PFOA, however that well is used primarily for farm animals, he explained.

A separate private well in Merrimack detected about 820 ppt of PFOA, and that family has been notified and is already receiving bottled water as well, according to Martin.

DES began investigating Merrimack's water after the Saint-Gobain plastics plant noticed low levels of PFOA at four faucets within its Merrimack plant about three weeks ago. Chronic exposure to PFOA, a man-made chemical once used to make Teflon, has been linked to a myriad of medical problems, including kidney cancer, testicular cancer and other illnesses.

"The wells that tested the highest were closest to Saint-Gobain on the map," he added.

On Friday, the preliminary test results from additional water samples were shared by state officials.

Test results from the Merrimack Village Water District, which supplies public water to about 25,000 local residents, revealed levels of PFOA ranging from 17 to 90 ppt, according to Martin.

Bottled water will not be provided to MVWD customers since the test results were below 100 parts per trillion, he said.

The United States Environmental Protection Agency has not set an enforceable drinking water standard for PFOA under the federal Safe Drinking Water Act. EPA's Office of Water has, however, established a provisional health advisory of 400 ppt for PFOA for short term exposure.

Martin explained that the EPA is expected to release a new lifetime health advisory level this spring, or in the near future, but he has not been informed of what that number might be.

In the meantime, DES will offer bottled water to any residents that have private wells detecting above 100 ppt, an amount determined following a review from health risk assessors, scientific data and water health guidelines now in place for Maine, said Martin.

Officials stressed that this was the first round of water testing, and that additional tests will be conducted.

Last week, environmental activist Erin Brockovich and the law firm Weitz & Luxenberg announced that it will begin looking into the Merrimack water problem, just as it has in other communities in Petersburgh, N.Y., North Bennington, Vt., and Hoosick Falls, N.Y. The same firm recently filed a class-action lawsuit against Saint-Gobain and Honeywell International over water contamination in those areas.

Locally, public meetings have been scheduled for next week to review the water test results. Those meetings will take place at 7 p.m. Wednesday at James Mastricola Upper Elementary School in Merrimack, and at 7 p.m. Thursday at Litchfield Elementary School in Litchfield.

Agency performs professional work

by Letters to the editor on March 18, 2016 at 10:26 AM

Albany Times Union

I read with interest the article by Brendan Lyons regarding the Center for Environmental Health ("State quiets health alarms," Feb. 28). I am very familiar with CEH, having worked there as a research scientist from 1985 until 2004, when I assumed my current position as a professor at the University at Albany School of Public Health.

Iagree CEH is sometimes slow to respond, partially because it is a large bureaucracy but also because the science is often inconclusive. I also agree its initial assessment regarding Hoosick Falls was incorrect. As an environmental scientist, I believe the results of the C-8 studies indicate PFOA in drinking water may be associated with human health effects. I disagree, however, with the implication CEH underplays threats and delays the release of health studies.

CEH's response to the World Trade Center disaster of 2001 was far from "tepid." CEH conducted health studies of residents and early responders and performed air monitoring for numerous pollutants.

CEH did not "downplay" the Diaz Chemical Co. spill in Orleans County in 2002. In fact, the Wadsworth Center developed a new method to measure the chemical of concern in urine, and CEH collected numerous urine samples from residents as well as samples of soil, air and water.

Regarding publication, the Department of Health is an executive agency, so CEH does require reports first undergo management review, which often takes time. It does not, however, censor reports. During my tenure, I published 32 articles in peer-reviewed journals.

The implication CEH systematically underplays threats and deliberately delays the release of health studies to avoid scaring the public is not accurate and is a disservice to its professional and hardworking staff.

Edward F. Fitzgerald, O'Leary Professor and Associate Dean Emeritus

Departments of Environmental Health Sciences and Epidemiology and Biostatistics

School of Public Health, University at Albany

Rensselaer

Traces of toxic chemical found in North Jersey water supplies

By SCOTT FALLON

Last updated: Sunday, March 20, 2016, 9:23 AM

NorthJersey.com

A toxic chemical that recently raised concerns throughout the region when it was found near the Wanaque Reservoir has been detected in several smaller drinking water supplies that serve more than a dozen North Jersey towns.

Test results compiled by the federal government in the past three years show 1,4-dioxane, a probable carcinogen, in Fair Lawn, Garfield, Pompton Lakes and several other towns that rely heavily on wells. It has also been found in almost 80 other water systems in every part of the state, from Shore towns to Highlands communities.

Environmental officials say there is no imminent health threat from the levels of 1,4-dioxane that were detected, but there is still no clear consensus on how much of the chemical can be in drinking water before it makes anyone ill. The federal government has yet to develop a national standard for the chemical in water supplies. New Jersey does not yet have one. And the standards established in other states vary wildly.

Those whose drinking water has 1,4-dioxane are left with little information or guidance about whether it is dangerous.

“We need direction based on good science,” said Ken Garrison, the borough engineer for Fair Lawn, which supplies water to 32,000 residents. “It’s difficult for a water supplier to do anything without getting guidance from the regulators.”

The findings in North Jersey range from a barely traceable amount in Park Ridge to a sample almost 30 times greater taken from some of Fair Lawn’s wells that are in a Superfund site.

While the amounts of 1,4-dioxane found in North Jersey are incredibly small — the highest recording of 3.24 micrograms per liter in Fair Lawn is equivalent to three drops of water in an Olympic-sized swimming pool — they are important to regulators in setting baselines that determine how much exposure creates a health threat.

Unlike arsenic, PCBs and other dangerous substances that scientists have studied for decades, 1,4-dioxane belongs to a group of chemicals the Environmental Protection Agency classifies as an “unregulated contaminant” because the agency doesn’t have enough data to determine all of its health implications and its prevalence in water supplies.

The chemical, 1,4-dioxane, is a clear, man-made substance used in paint strippers, degreasers and varnishes. It is also created unintentionally when mixing certain chemicals. It blends with water very easily and is difficult to remove.

Drinking 1,4-dixoane can cause liver and kidney damage and is “reasonably anticipated to be a human carcinogen” by the U.S. Department of Health. In 2010, the EPA determined that 1,4-dioxane is more likely to cause cancer than previously thought: Cancer could occur in one person out of 1 million exposed to 0.35 milligrams per liter of the chemical over a lifetime.

The chemical made news recently after it was discovered in groundwater at the Ringwood Superfund site in the Ramapo Mountains, where Ford Motor Co. dumped tons of paint sludge almost 50 years ago. Although that groundwater is in the watershed that supplies the Wanaque Reservoir, 1,4-dioxane has not been detected in the reservoir, which serves up to 3 million people.

But it has been found in water systems that serve Fair Lawn, Garfield, Pompton Lakes, Oakland, Ramsey, Park Ridge, Elmwood Park, Ridgewood, Wallington, Hawthorne, Mahwah and other towns that receive most of their water from wells, according to an analysis of EPA data by The Record.

The highest concentrations, by far, were found in Fair Lawn, which has been treating

contaminated drinking water for almost 30 years. It was followed by Garfield, Pompton Lakes and Oakland. All were above the New Jersey standard to clean up groundwater: 0.4 micrograms per liter. But that standard applies only to contaminated site cleanups, not water systems.

While the towns have reported their findings of 1,4-dioxane to residents in annual water quality reports, there is nothing explaining what it means.

“It becomes a very difficult issue to communicate to the average consumer because there is so little data,” said Kenan Ozekin, a senior researcher who has written about the chemical for the Water Research Foundation, a Denver-based non-profit.

Recently required test

The EPA just began requiring water systems across the nation to test for 1,4-dioxane and a new group of other unregulated chemicals.

The New Jersey Department of Environmental Protection plans to eventually develop a drinking water standard for 1,4-dioxane since it has been found in water supplies across the state. The highest level, 5.83 micrograms per liter, was found at a New Jersey American Water Co. plant that draws water from wells for parts of Warren County, according to EPA data.

But it’s not yet a priority. The DEP’s Drinking Water Quality Institute is focused on developing standards for two other dangerous chemicals that have been discovered in the state’s drinking water: perfluorooctanoic acid, or PFOA, and perfluorooctane sulfonate, or PFOS, said Larry Hajna, a DEP spokesman.

“We will be reaching out to systems that have detected 1,4-dioxane in the near future with additional information,” he said.

Without a national standard, other states have to develop their own.

California and Colorado have two of the strictest, with 1 microgram per liter and 3.2 micrograms per liter, respectively. New York allows almost 16 times that at 50 micrograms per liter while South Carolina accepts up to 70 micrograms per liter.

“It’s all over the place and that’s what makes it difficult trying to get a sense of what the standard should be,” said Garrison, a Fair Lawn resident.

To develop a standard, Ozekin said, more testing needs to occur. “One sample may not tell you the whole story,” he said. “You need to come up with a monitoring plan.”

Trying to get 1,4-dioxane out of water is difficult and expensive.

Tucson, Ariz., built an $18 million treatment plant that uses a method called “advanced oxidation” in which ultraviolet light and hydrogen peroxide remove 1,4-dioxane and other contaminants. It opened in 2014 and purifies 8 million gallons a day.

The Tucson well system, like Fair Lawn’s, is contaminated with the chemical trichloroethylene, a cancer-causing solvent known as TCE that is often found in wells polluted with 1,4-dioxane.

Tucson, like Fair Lawn, had blasted the water with air for almost three decades to remove TCE well before it reached any faucets. But Tucson found 1,4-dioxane in its drinking water as far back as 2002. While blending the contaminated water with fresh water helped lower the concentration, water officials didn’t think it would fall far enough to meet updated EPA health standards.

“There was the sentiment that the city didn’t respond well in the ’80s, when we first found TCE in the water,” said Fernando Molina, a spokesman for Tucson Water. “We

wanted to stay ahead of 1,4-dioxane and make sure everyone knew this was important to us."

Fair Lawn is similar but on a much smaller scale.

The town has been removing harmful chemicals from drinking water for almost 30 years at a treatment plant. The water comes from the Westmoreland Well Field, one of the region's oldest Superfund sites. It is contaminated with solvents from Eastman Kodak, Fisher Scientific and Sandvik Inc. that leached into the water supply.

Much of the 1,4-dioxane stays in Fair Lawn's water even after air stripping, Garrison said. But the town is not prepared to make a major investment in new technology until environmental regulators develop a firm standard.

"Where we're going on this depends on what EPA or DEP comes up with," Garrison said. "We need to know what the numbers are."

Email: fallon@northjersey.com

Road salt showing up in local bay and creeks:It's rare for road salt to be included in environmental plans. Steve Orr/Angie Nassar

by Steve Orr

10:10 a.m. EDT March 20, 2016

Rochester Democrat and Chronicle

The snow is melted, the air is warming and the winter of 2015-16, a mild one by any standard, is a fading memory.

But one staple of our winter will remain, out of sight and out of mind: Road salt.

Several hundred thousand tons of sodium chloride are spread on roads and parking lots in the Rochester area each winter. New York is the nation's most prolific user of road salt, and Monroe County among the state's most eager consumers.

Highway crews couldn't live without it, and most motorists and pedestrians have come to rely on it: Road salt melts snow and ice and allows safer, speedier travel even in the depths of winter.

But there's a price. Road salt is bad for the environment — and there is some evidence that it has built up in one local ecosystem to the point where, if unchecked, it could threaten aquatic life.

Consider:

•Two creeks in the eastern suburbs, Irondequoit and Allen, have gotten markedly saltier.

•Chloride levels in the bottom of Irondequoit Bay in the spring of 2015 were the highest since the 1970s.

•Ongoing development in eastern suburbs contributes to the problems.

•Potential solutions include better deicer management options and innovative stormwater treatment.

Chloride levels in Irondequoit Creek

Create bar charts

Many people know that salt can eat away at pavement, motor vehicles and bridge supports, and that it can stress or kill roadside plants.

Fewer know that road deicers can turn freshwater streams and ponds permanently salty, equivalent in salinity to an ocean estuary.

“We’re just coming to the realization that even though salt is fairly cheap, the long-term consequences are fairly significant,” said Victoria Kelly of the Cary Institute of Ecosystem Studies, a Dutchess County environmental research group that has studied road-salt impact.

"It doesn’t just wash off the roads and into a stream and then to a river and out to the sea. It builds up in an ecosystem," she said. "We find it in lakes and ponds, we find it in wetlands and soil and groundwater."

Yet road salt use isn't tracked, and there is no standard response to salt build-up in streams and lakes. The federal government has issued criteria that indicate levels that are deemed unsafe for aquatic life, but there are no hard-and-fast standards to back them up.

In a departure from the laissez-faire approach, local government stepped in when an overload of road salt threatened to ruin Irondequoit Bay and several creeks that feed it in the 1970s. State, county and local highway crews cut back their use of salt in those watersheds, and the bay recovered.

But the inescapable conclusion today is that road-salt use has risen again.

“I’m seeing 10-wheelers out there with spreaders, circling the parking lot ‘round and ‘round and ‘round.

Eric Williams, assistant to the public works commissioner in Perinton

The salt concentration in those creeks, which flow through Rochester's southeastern suburbs, has crept back up. In March 2015, chloride in Irondequoit Creek spiked to a level higher than anything seen in the 1970s, according to a Democrat and Chronicle analysis of U.S. Geological Survey data.

Monroe County officials are just finishing a report that reaches a similar conclusion. The report, a portion of which was shared with the Democrat and Chronicle, concludes that the concentration of chloride that had built up in the bay's bottom waters last spring was the highest they'd seen in three decades and rivaled conditions in the 1970s.

The surge in chloride concentrations likely reflects an increase in the use of road salt in the latter part of the winter of 2015, which was very cold and, at times, very snowy.

Whether the report leads to any attempt to monitor or reduce road-salt use isn't clear.

"I suspect that as various folk see this report once it's published that it will lead to discussions in various settings and committees about best practices," said John Ricci, a spokesman for the county Department of Public Health. "There is nothing definitive within the report that calls for reductions (in salt applications) at this time."

Some local officials are already aware of the report's findings and may use them to look for a way to reduce chloride levels in the bay.

"We're always concerned about road salt," said Geoffrey Benway, Webster's public works commissioner. "We're looking for ways to … protect the bay. It's always a topic, but the problem is finding a good alternative."

The issue has come up recently in meetings of the Irondequoit Bay Coordinating Committee, a group consisting of representatives from the county and the three towns that border the bay, Webster, Penfield and Irondequoit.

Road salt also has come up recently at meetings of the Monroe County Stormwater Coalition, which comprises representatives of municipalities that enforce federal and state stormwater regulations

Members have talked about seeking state funds to put in place a system to remove salt from storm water before it enters the bay. Route 104, a wide highway where considerable road salt accumulates, is an example of a possible location, Benway said.

The high salinity in Irondequoit and Allen creeks, while perhaps unique locally, is not surprising when viewed in a national context. The Geological Survey reported two years ago that a study of 19 streams in areas where road salt is used found 16 of them with elevated chloride and six of them with levels that often were high enough to harm aquatic life. Road salt use had doubled since the 1980s, it reported.

“Findings from this study emphasize the need to consider deicer management options that minimize the use of road salt while still maintaining safe conditions, the study's lead author, USGS scientist Steve Corsi, said at the time.

In New York, there's particular concern about the Adirondack region. Research by Paul Smith's College in Franklin County has found that lakes near highways, including highly prized Lake George, are as much as 30 times saltier than bodies of water that are farther away from paved, salted roads.

The road salt-drinking water connection

Road salt overload

The alarm about Irondequoit Bay was first raised in 1971 by members of a local

The alarm about Irondequoit Bay was first raised in 1971 by members of a local environmental group, the Rochester Committee for Scientific Information, which eventually published more than 20 papers on the consequences of road-salt overuse.

As the group reported and government officials verified, road salt was interfering with the bay's natural cycles. Lakes and bays typically mix in spring and fall, with surface water and bottom water switching places. The overturning is crucial to providing fresh life-supporting oxygen to the bottom layer.

So much salt had accumulated in the bay's deep water, however, that it wasn't mixing. The bottom of the bay was oxygen-starved, which presented a long-term threat to fish and other aquatic life.

It was a stunning indictment of local highway crews, who had been applying salt at a prodigious rate. According to the 1971 paper, 2½ percent of all road salt used in the United States was being dumped on Monroe County roads.

“"Salt has been around a long time. It’s amazing we haven’t gotten better at doing snow and ice control without it.""

Victoria Kelly, Cary Institute of Ecosystem Studies

Chastened, municipal highway departments in the Irondequoit basin cut back salt use from a high of 77,000 tons to about 30,000 tons by the mid-1970s.

The bay returned to normal and the issue faded from prominence. Plans by county officials to continue monitoring salt use went nowhere. Ricci noted, though, that water-quality testing in the bay never turned up any indication that aquatic life was being harmed.

The report now being prepared by the county indicates that despite the heavy salt loading, the bay did turn over last spring.

The concept of "sensible salting," first adopted by local municipalities that had been asked to help save Irondequoit Bay, is now a widely accepted idea, though the motivation is as much financial as environmental.

Highway officials in several towns in the Irondequoit basin, including Brighton, Webster and Perinton, have said they are mindful of the experience with the bay and of salt's potential environmental impact.

Actual salt use is not reported publicly by most municipalities, but the amount of salt they order in advance of each winter is published each year by the New York state agency that arranges bulk purchase of highway deicer.

Total salt orders for use in Monroe County have been about 160,000 tons annually over the last decade, though there has been some variation based on expected weather conditions. The statewide total is about 3 million tons.

The amount of salt ordered each year for use in the Irondequoit basin has been roughly 30,000 to 40,000 tons, according to Democrat and Chronicle estimates based on the available data. Those municipalities' salt orders have not grown over the last decade, according to state records, and in many cases decreased.

Kelly said sensible salting is practiced in many communities. There also is increased use of brine and sodium chloride alternatives, which can reduce chloride loading of streams and groundwater.

But rock salt remains the favored method of dealing with ice and snow.

"Salt has been around a long time. It’s amazing we haven’t gotten better at doing snow and ice control without it," Kelly said. "Some of the work we’ve been doing is trying to convince people to be more efficient with their salt use. You can actually maintain ice-free roads by using less."

Salt use

For salt, look southeast

Not every stream in Monroe County is choked with salt.

The Geological Survey, which operates a vast nationwide water monitoring program, has been collecting water-quality data on local streams for decades. It has consistently reported relatively low chloride levels in Oatka, Black, Honeoye and Northrup creeks and the Genesee River. The watersheds of those streams are lightly to moderately developed for the most part.

The USGS also has monitored Irondequoit Creek and a smaller tributary, Allen Creek.

Allen Creek flows through parts of Brighton and Pittsford before emptying into Irondequoit Creek near Panorama Plaza. Irondequoit Creek starts in Victor and Mendon and flows through adjacent suburbs to the south end of the bay in Penfield.

The combined watershed, about 169 square miles in size, reaches from The Marketplace Mall on the west to Eastview Plaza on the east and includes some of the densest commercial and residential development in suburban Rochester.

The level of development is crucial. More roads, parking lots and sidewalks lead to more salting, and an abundance of man-made surfaces enhances runoff into ditches and creeks.

The USGS has published numerous reports on Monroe County streams, and many of them make this point. "Trends in chloride are … a function of the rate of road salt application during the winter and the amount of impervious area in the drainage basin," the agency wrote in a 2003 report.

Both Allen and Irondequoit creeks have grown markedly saltier.

Beginning in 1980, the chloride level detected in Irondequoit Creek at a monitoring point near Ellison Park rose at a slow and steady rate from about 100 milligrams per liter, reaching 150 in the year 2000. The concentration soared after the cold, snowy winter of 2002-03, and dropped back down the next year, setting a pattern of variability that has continued since.

Last March, chloride spiked to the highest reading on record for Irondequoit Creek — 873 mg/liter — more than double the highest springtime concentration seen previously.

Allen Creek no longer is monitored for chloride on a regular basis. It recorded even higher levels than Irondequoit Creek when it was checked more often, four times breaking the 1000 mg/liter mark.

The U.S. Environmental Protection Agency has issued water-quality criteria that say short-term exposure to chloride levels of 860 mg/liter, or longer-term exposure to chloride levels of 230 mg/liter, challenge freshwater species.

Fish, frogs and other amphibians, insects, little crayfish, snails and mayflies — to one extent or another, the growth, reproduction and survival of all of them can be threatened by chloride overdoses, experts say.

Kelly, of the Carey Institute, said numerous studies have documented chloride-induced harm to organisms. In water bodies that are close to roads, "you can certainly see concentrations (of salt) high enough to kill and do harm to organisms in that body of water," she said.

Road salt recipes 'like playing mad scientist'

Salt in summertime

A common fallacy, Kelly noted, is that road salt only contaminates water in late winter and spring, when rain and melting snow washes it into drainage ditches and streams. That is when levels often reach their peak, but chloride doesn't disappear from creeks when spring is over.

About half the chloride from road salt ends up in soil and then in groundwater. That salty groundwater can rise and infiltrate creeks in the summertime.

Chloride values over 100 mg/liter are common in Irondequoit Creek in the summer, and they jumped to 553 ml/l one August day in 1990. The average mid-summer reading in recent years has been double what it was in the 1980s.

"What we've been able to show is the concentration of salt in those low-flow summer periods has been increasing," Kelly said.

The rising levels of chloride in Irondequoit Creek and the spike in salt in the bay last year present a paradox: If municipal highway officials say they practice sensible salting, why are the levels up?

One possible explanation is that highway departments have been reacting more aggressively to major snowstorms and mid-winter cold spells, of which the Rochester area has had its share in recent years.

Another reason is that while the metropolitan area has grown only modestly in population, there has been significant residential and commercial development. An online tool developed by the National Atmospheric and Oceanic Administration shows a 7.5 percent increase in developed surface area in Monroe County between 1996 and 2010. No measurement of development prior to that time was readily available.

Even modest growth meant new or widened public roads that, at times, required salt. But it also meant many new big-box stores, shopping plazas and suburban office parks, all of them surrounded by parking lots and fed by private driveways.

And all of that is salted. “I'm starting to notice more and more applications of road salt by private contractors," said Eric Williams, assistant to the public works commissioner in Perinton. “I’m seeing 10-wheelers out there with spreaders, circling the parking lot ‘round and ‘round and ‘round.”

Kelly, of the Carey Institute, has seen the same thing. "A private contractor handling the facilities around a hospital or a shopping mall has no incentive whatsoever to reduce the amount of salt they use," she said.

She said she had Carey interns try to find out how much road salt private contractors used, but they failed. "You can’t FOIL that. It’s not a government agency. We just don’t have any data.

"I hate to accuse private contractors without having any data," she said. "But it’s one of the things we think about when we’re trying to get everybody to use best management practices.

"That’s a behemoth of a project."

Watchdog report: Brine use on roads debated

Findings

•A new report, a portion of which was shared with the Democrat and Chronicle, concludes that the concentration of chloride measured in Irondequoit Bay's bottom waters last spring was the highest seen in three decades and rivaled conditions in the 1970s.

•Findings from the study emphasize the need to consider deicer management options that minimize the use of road salt while still maintaining safe conditions.

•Our analysis of the available data shows that “sensible salting” is practiced in many communities but rock salt remains the favored method of dealing with ice and snow.

•Residential and commercial development is contributing to additional salt use by private contractors and others.

•Readings in Allen and Irondequoit creeks have gotten markedly saltier, with levels that the EPA says threaten freshwater species such as fish, frogs and other amphibians, insects, little crayfish, snails and mayflies.

State officials plan to visit Petersburgh to give PFOA update

By WRGB Staff |

Saturday, March 19th 2016

WRGB Channel 6 News Albany

In the wake of Governor Cuomo's visit to Hoosick Falls last Sunday, residents in nearby Petersburgh are wondering when the governor will visit the town.

Rory Lynch has lived in Petersburgh since 1976. "I think a lot of our readings are higher than in Hoosick Falls even though we are a smaller community, so he really should come and talk to us," Lynch said. Testing for PFOA on Lynch's private well revealed the presence of PFOA at 680 parts per trillion.

The Regional EPA says people should not drink water from a source that has PFOA greater than 100 parts per trillion. "I was surprised it was that high; I thought it might be lower because I have a deep well," Ms. Lynch said.

Emily DeSantis, Assistant Commissioner for Public Affairs in the Department of Environmental Conservation, says the state has undertaken several measures in response to PFOA contamination in Petersburgh.

"Governor's office, DEC and DOH officials have been Petersburgh twice previously, once when the first test result came back and we started bottled water and then again on Feb. 26 to talk to local officials. We plan to return to Petersburgh to provide an update to town officials soon," Ms. DeSantis said.

State investigating after chemical found in well water in two towns

Levels of PFOA found in wells in Litchfield, Merrimack

UPDATED 12:18 PM EDT Mar 20, 2016

WMUR Channel 9, Manchester, NH

LITCHFIELD, N.H. —State officials are trying to determine how much of a chemical is in Merrimack and Litchfield drinking water.

Test results show several wells have been contaminated, and there could be more.

The Department of Environmental Services has tested about a dozen wells in the two communities.

Preliminary results found perfluorooctanoic acid, or PFOA, in all of them.

State and local leaders said it's still early in the process of collecting and analyzing data, but already, initial results have led them to take some action after a chemical found in people's drinking water has prompted the state to supply two families with bottled water.

Only families with more than 100 parts per trillion of PFOA in their wells were told to drink bottled water.

“We based that out of an abundance of caution,” said Jim Martin, the public information officer for the Department of Environmental Services.

Officials said they plan to meet with neighbors to address their concerns.

"The information that we felt comfortable with that was peer-reviewed, scientifically peer-reviewed information, why we chose to any of the wells, over 100 parts per trillion, that we felt that they should go on bottled water,” Martin said.

DES began its investigation a few weeks ago after Saint-Gobain Performance Plastics found low levels of PFOA in four water samples at its Merrimack facility.

The Environmental Protection Agency has not set an enforceable drinking water standard for PFOA and the effects of long-term exposure are unclear.

PFOA is a man-made chemical commonly found in items like candy wrappers, stain resistant carpet and electronics.

"These are chemicals that are widely dispersed into the environment,” Martin said. “The majority of the United States population has a certain level of PFCs in their blood."

Litchfield leaders said it's too early to tell if the chemical should be a concern.

"We're looking to make sure that anybody up there whose samples are taken from their wells, who are above that 100, gets the adequate supply from the state," said Frank Byron, chairman of the Litchfield Board of Selectmen.

The state is still collecting water samples and more tests need to be done.

"So that we can have a better idea of the overall number of PFOA in the wells in the surrounding area," Martin said.

The EPA has not set an enforceable drinking water standard for PFOA, nor has it established a health advisory for lifetime exposure to the chemical.

The EPA has established a provisional health advisory of 400 parts per trillion for PFOA, which is based upon short-term contact. EPA is currently developing guidelines for long-term exposure levels, which is expected to be released in the spring.

DES and the New Hampshire Division of Public Health Services are holding public meetings to discuss the water test results.

The meetings will be held:

•7 p.m., Wednesday, at Mastricola Elementary School, 7 School St., Merrimack, in the all-purpose room.

•7 p.m., Thursday, Litchfield Middle School, 19 McElwain Drive, Litchfield, in the cafeteria